Epi News

COCONINO COUNTY HEALTH DEPARTMENT
Making A Difference Every Day

September 2007

Epizootic Plague in Doney Park

In August, two dead prairie dogs found at a home in Doney Park tested positive for *Yersinia pestis*, the bacterium that causes plague. Fleas collected from the same property and from other locations in Doney Park and Continental Country Club tested positive for the plague bacterium. Coconino County Health Department personnel responded to the situation by collecting and testing fleas, issuing a press release, distributing and posting information about plague in the area, and providing education at a community meeting.

Multiple rodent species and rabbits can serve as reservoirs or hosts for *Yersinia pestis*. The bacteria can be transmitted to humans or other animals through the bite of infected fleas. In addition, cats or humans that have the pneumonic form of plague can transmit the bacteria through respiratory droplets.

A human case of plague was diagnosed in Apache County in early September. The symptoms of bubonic plague may include fever, chills, malaise, muscle aches, nausea, prostration, and swollen lymph nodes. The disease can become septicemic (spreading throughout the bloodstream) and/or pneumonic (affecting the lungs). Primary pneumonic plague can occur when respiratory droplets containing the plague bacteria are inhaled. Specimens that should be collected for plague testing include lymph node aspirate, blood, sputum, or bronchoalveolar lavage. Physicians that suspect plague in a patient should report the case to CCHD within 24 hours. (see box below)

CCHD Disease Reporting Contact Information:
928-522-7920 (8AM – 5PM Mon-Fri.)
928-913-6744 (after hours urgent reports)
928-522-7922 FAX
Mail To: Coconino County Health Department
2625 N. King St., Flagstaff, AZ 86004

More information available at: http://www.coconino.az.gov/health.aspx?id=1183

Hantavirus in Flagstaff

In August, a woman from the Flagstaff area was diagnosed with hantavirus pulmonary syndrome (HPS). Her clinical course was relatively mild for hantavirus, and she recovered completely after a brief hospital stay. Although she reported no contact with rodents or their nesting materials or droppings, she may have been exposed while performing yard work in a dry, dusty area adjacent to forested land.

HPS is caused by a virus that individuals get through contact with the urine, droppings and saliva of wild mice, primarily deer mice. Breathing small particles of mouse urine or droppings that have been stirred up into the air is the most common means of infection. The illness starts with fever, headache and muscle aches, and progresses rapidly to severe difficulty in breathing and, in some cases, death. Any suspect cases and/or positive results should be reported to CCHD by calling 928-522-7920. CCHD can facilitate testing.

First County West Nile Virus Case

In August, a 54-year-old Flagstaff area resident was diagnosed with West Nile fever. She had recently traveled out of state and may have contracted the virus during that time. However, local transmission cannot be ruled out. West Nile virus can be transmitted to humans through infected mosquitoes. Most infections are asymptomatic or mild. Symptoms usually appear in 3 to 14 days after being bitten. Symptoms may include fever, headache, body aches, muscle weakness, or rash. A small percentage may experience more severe neurological symptoms such as stiff neck, disorientation, convulsions, paralysis, or death. Suspected cases and/or positive results should be reported to CCHD by calling 928-522-7920.

Meningococcal Meningitis

In early September, a Flagstaff Middle School student was admitted to the intensive care unit at Flagstaff Medical Center (FMC) with a suspect diagnosis of meningococcal meningitis. Her cerebrospinal fluid (CSF) contained intracellular, Gram-negative diplococci, consistent with *Neisseria meningitidis* (i.e. the meningococcus) In addition, a Northern Arizona University student was admitted to FMC with signs and symptoms of bacterial meningitis.

The Coconino County Health Department (CCHD), in cooperation with NAU and FMC, conducted an investigation. The illnesses appear to be unrelated. Several close contacts received prophylactic antibiotics. The patients recovered and were released from the hospital. The last case of invasive meningococcal disease in Coconino County occurred in March of 2007.

The major invasive syndromes caused by *Neisseria meningitidis* are meningitis (infection of the lining of the brain) and septicemia (infection of the bloodstream). The symptoms of the illness may include sudden onset of intense headache, fever, stiff neck, nausea, vomiting, joint pain, rash, and sensitivity to light. The disease is transmitted through close contact, which can include any activity that results in the transfer of fluids from the nose and mouth (e.g. saliva, mucous, or large droplets created by sneezing or coughing) from a contagious individual to another person's mouth or nose. The incubation period is usually 3 or 4 days (range 2-10 days). Physicians who suspect *Neisseria* illness in a patient should report the case to CCHD within 24 hours (see contact information on front page).

Communicable Disease Summary Report – Selected Diseases*

Diagnosis	Jan - Aug 2007	Jan - Aug 2006
campylobacteriosis	19	24
chlamydia	290	218
coccidioidomycosis	8	4
cryptosporidiosis	3	0
enterhemorrhagic *E. coli*	0	3
giardiasis	4	2
gonorrhea	30	28
***Haemophilus influenzae*: invasive**	3	1
hantavirus infection	1	0
hepatitis A	2	3
hepatitis B	16	15
hepatitis C	54	67
herpes genitalis	13	8
legionellosis	1	0
lyme disease	2	1
malaria	0	1
meningococcal invasive disease	1	0
methicillin-resistant *Staph. aureus*: invasive	9	12
mumps	0	2
pertussis	2	38
salmonellosis	10	13
shigellosis	8	18
***Streptococcus pneumoniae*: invasive**	19	13
streptococcal group A: invasive	4	3
streptococcal group B: invasive (<90days)	1	0
syphilis	11	5
varicella	20	16
West Nile virus infection	1	0

*The number of cases diagnosed during the given year in residents of Coconino County. Data are provisional and subject to change.

Contact Information: **Michael Callahan**, Epidemiologist, (928) 522-7842
Linus Nienstadt, Communicable Disease Program Manager, (928) 522-7892
Visit www.coconino.az.gov/health for more information

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